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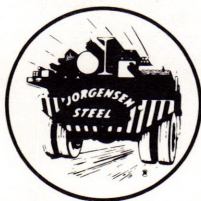
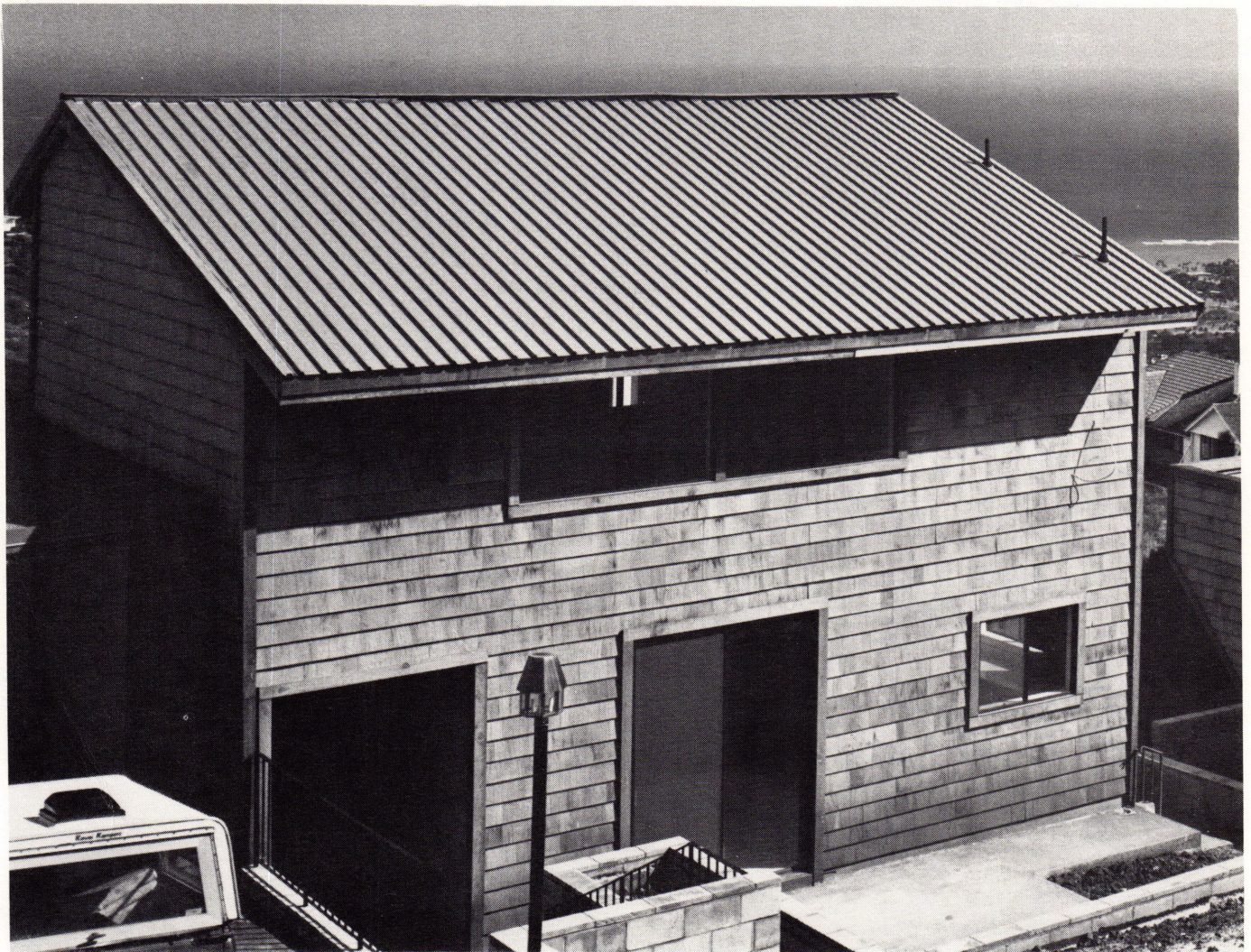




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# HAWAII ARCHITECT

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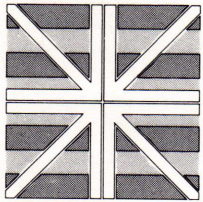
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## Headlines

# Five-Mile-High Club

by DONALD D. CHAPMAN, AIA  
President, Hawaii Society/AIA

**FIVE-MILE-HIGH CLUB:** Looking out the window at our world slowly drifting by 35,000 feet below me, as I write this in the comfortable surrounding of a DC-10 logging 600 MPH, it seems much easier to place our professional lives in true perspective.

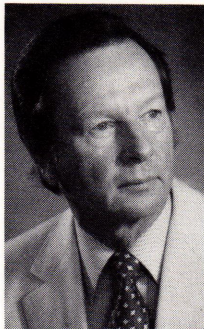
The largest, most complicated, and most difficult project I will ever undertake would probably appear as little more than an insignificant fly speck below me. Yet, in designing, I am concerned and do worry over what from this altitude would appear to be microscopic details of short duration — just as you do. Maybe the only real long-term importance of what we so often fret over during design and construction lies only in the elevation of the spirit resulting from the knowledge that we have truly done our very best. Even the best of the best return to dust after a relatively few tomorrows.

My year as your recycled prez is quickly winding down, and Francis Oda's year soon will be taking off on what I know will be a milestone year for HS/AIA. In the next issue — my swan song — I will try to thank those of you who have really made things happen, and who have made my role so delightfully simple. The remainder of this issue will be a 35,000-foot-high potpourri.

**HEADLINE:** Hawaii Architect editor retires! After being cajoled into staying much much longer than he had anticipated, Glenn Mason has decided he really is tired and it is time to wipe off the printer's ink. Glenn — how do I express the appreciation of HS/AIA for the countless long hours and total dedication on your part in developing Hawaii Architect to its current level of excellence? There have been a number of excellent, dedicated editors before you, but I believe no one will quibble if I use the words of an Englishman who once said "Never in the Annals of Hawaii Architect have so many owed so much to so few — you." Merci, Arigato, Thank You, Aloha — a Mahalo Award with Crossed Crow Quill Cluster.

**HART WOOD:** First response to "check before you chuck" was a delightful surprise from Ormand Kelly in the form of a number of original Hart Wood drawings complete with pen cleaning chicken scratches outside the borders. Ormand, many thanks for sharing.

**SHOGUN HARA:** I understand Punahou recently dedicated a mall on campus in honor of Ernie Hara. It is officially called Hara Mall and is a much deserved honor. However, ask any bright kid on campus where it is, and all you get is a blank stare until his/her face lights up with, "Oh! you mean Shogun Alley?"



Chapman

**DLU/Building Department:** As Reagan sails the old New Deal into the sunset and over the edge of the world I believe we have a new Good Deal in the making at City Hall. I've met with both Mike McElroy of DLU and Roy Tanji of the Building Department. They are both sincere in asking HS/AIA to work with, and contribute to, their decision-making process. Those of you who recently received a request from me regarding the permit process and responded — a Mahalo Award First Class. To those of you who were too busy to respond, and I know who you are, shame and forever don't complain! For the first time that I can recall since 1968-69 when Frank Shrivaneek asked for the Hawaii Chapter's thoughts on the CZC, we again have an opportunity to contribute to ordinances and procedures that control our professional lives and ultimately shape the community around us. With such an opportunity, if we don't perform when called upon we should gracefully and quietly shut up.

**PAN PACIFIC ARCHITECTURAL CITATION:** Yes Beverly, we do have a Pan Pacific Award recipient, and a great one at that. Balkrishna Doshi from India will be here to receive the citation December 9 at the Oahu Country Club. Installation of officers for HS/AIA 1982 will also be a part of the evening's festivities. Mr. Doshi is scheduled to present a lecture the preceding evening in the Art Auditorium at the University of Hawaii. Mark your calendar, for he is truly an architect's architect.

**CONVENTION '82:** Time keeps chugging along, and I'm pleased to report budgets are set and all committees are organized and on track. Final victory will depend on the volunteer army to respond when called upon. Please — no conscientious objectors.

**THANKSGIVING:** We do have much to be thankful for because of the sacrifices, caring, sharing, and involvement of those before us. If you would prefer not to be called a turkey behind your back (or to your front, if you're a little guy), make a promise to get involved this coming year.

Happy Thanksgiving! HA



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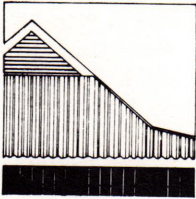


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Historical

# In Memoriam: The Alexander Young Building

by DON HIBBARD

Photos by L.E. Edgeworth  
Courtesy of Hawaii State Archives

*The information for this article was gathered by the author and Nathan Napoka, both of the Department of Land & Natural Resources state Historic Preservation Office, in the course of researching the Alexander Young Building for National Register nomination.*

The Alexander Young Building falls to the laws of entropy and economic aggrandizement. With its demolition the major architectural statement of an era passes from our vision.

Dating from the opening years of this century, the building embodied and epitomized the boldly optimistic, blustery spirit which followed in the wake of annexation. The period's largest and most extravagant structure, it cost over \$2 million to erect, a sum which in those pre-inflation days repre-

sented more capital than some good-sized sugar plantations. Dominating Honolulu's skyline until the recent advent of high-rises, it remained a major landmark of the downtown area and a hub of social activity.

Designed by Oakland architect George W. Percy in 1900, the 300-room building took three years to construct. To say the least, it was huge, and a 1903 *Paradise of the Pacific*<sup>1</sup> noted that visitors to Honolulu justifiably mistook the building for a palace. With 24-inch walls faced with sandstone from Calusa, California, the building's main body stood four stories high and terminated with a roof garden.

Its wings, with their tall Corinthian columns, towered a full six stories above Bishop Street, which owed its existence to the construction of the hotel, as both Alexander

Young and Bishop Estate donated land to create the then one-block-long thoroughfare. Extending the full block in length, the Alexander Young presented a greater frontage than any mercantile structure west of Chicago.

In an era of grand gestures and ambitious undertakings, when more was more and bigger was better, this building stood as an awesomely outrageous act. The hotel had a larger floor area than any hostelry west of Chicago, and the *Pacific Commercial Advertiser* declared:

San Francisco, with its 400,000 people, has only one caravansary as good and is priding itself on the prospect of one more. Across the bay, Oakland, with 100,000 people, has nothing to compare with it; and going East through Nevada, Utah, Colorado, Kansas and so on to the

Alexander Young Building, c. 1920.





western limits of Chicago, no hotel of equal cost and splendor can be found. Between Chicago and Honolulu is a distance of 4000 miles and a population of over thirty millions of people, yet but one hotel can be found in all that region which equals in size, modern fittings and general attractiveness the hotel which bears the name of Alexander Young.<sup>2</sup>

With its marble wainscotted walls, plaster ceilings, lushly carpeted or mosaic floors, and granite

entry columns from Scotland, the hotel had an air of opulence. Furthermore, the building was totally self-supporting with its own artesian well and electric generator, as well as a refrigeration unit capable of manufacturing the equivalent of two-and-one-half tons of ice a day.

The Alexander Young was considered to be ahead of its time, and indeed it was. Honolulu, with its population of approximately 40,000

(the present size of Hilo), could not support the hotel, and it was not until the 1920s that this endeavor showed a profit. To compensate for the losses incurred by the hotel, Alexander Young purchased his two major competitors, the Moana Hotel in Waikiki and the original Royal Hawaiian Hotel which stood on the present site of the Hotel Street Armed Forces YMCA, and thus earned himself the title, "Father of the Hotel Industry in Hawaii."

A testament to the enterprise and vision of Alexander Young, the structure was built with locally earned money for the people of Hawaii. The Evening Bulletin pronounced the hotel, "superior to any building to be found in any Mainland city of Honolulu's population, and equals the best which a majority of the great centers can offer."

The newspaper further found that Alexander Young, "has given to Honolulu an establishment that is luxurious, complete, [and] far beyond what this city might have reason to expect." As "positive evidence" of Mr. Young's "confidence in the future of the city," the paper concluded, the hotel, "should furnish an ever active inspiration to support the enterprise and commend the spirit which prompts men to break out of the narrow shell of personal selfishness and makes public spirit a living daily reality."<sup>3</sup>

An excellent rendition of the Second Renaissance revival style, with its well articulated facade, the Young building represented the highest ideals then current in American architectural circles.

During the late 19th and early 20th centuries, a revival of classically inspired styles, fired by the example of the Columbian Exposition of 1893 in Chicago, swept across America. Emulating the buildings of classical antiquity and renaissance Italy, these new designs were considered the most appropriate architecture for America, embracing not only the associations of democratic Greece and Rome, but a sense of old world culture as well. As the prescribed forms of the "City Beautiful" movement, they dominated public building design for the next two decades.

The style reigned supreme throughout Honolulu, and in a 1902



Second floor lobby, c. 1920.

Roof garden, c. 1920.





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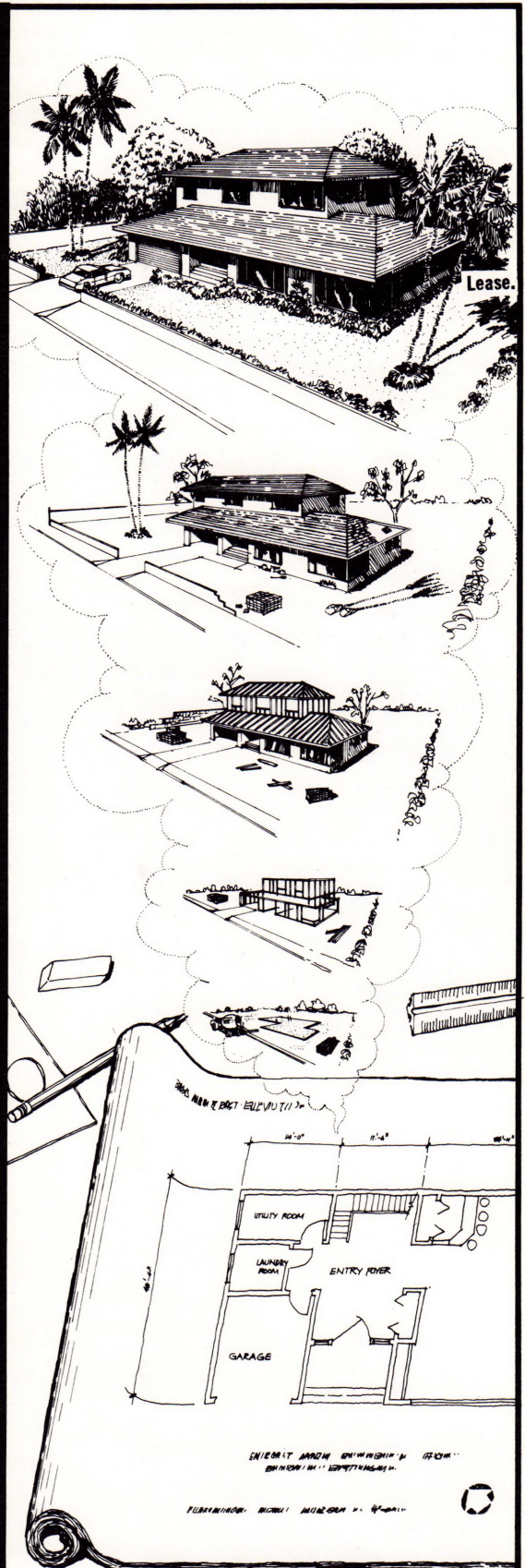
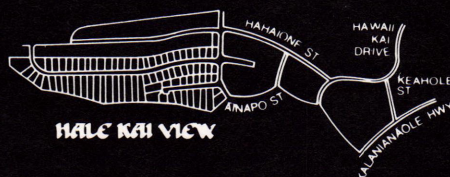
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## In Memoriam

Thrum's Annual architect W.E. Pinkham noted the city's improved appearance, applauding the classical beauty of the new architecture. It was a change from "commonplaceness in design, to style and dignity," which "greatly benefited" the downtown area by making it more attractive.

After alluding to the grandeur of Venice, Florence, and Rome, Pinkham concluded that "Paradise" would not be a misnomer for Honolulu if nature's scenic loveliness were "augmented by beautiful creations of the genius of man's artistic temperament."<sup>4</sup> The author rightly read the architecture of his day; it strove to elevate the American cityscape to art, and in turn enhance and inspire the lives of its inhabitants.

That such forms were built readily in Honolulu, well depicted the fervor with which the heads of the business community accepted the American style and annexation. The presence of these structures tangibly affirmed Hawaii's new relationship with America, and none did this better than the Alexander Young.

With its imposing size, well modulated facade, and restrained use of classical embellishments, the building stood as the most outstanding example of the new architecture in the city. It represented the high spirits and even higher aspirations of its age, and its demolition removes a powerful reminder of that period from our daily lives.

### FOOTNOTES

1. "Honolulu's Hotels," Paradise of the Pacific, Vol. XVI. December 1903, p. 46.
2. Editorial, Pacific Commercial Advertiser, August 1, 1903.
3. Editorial, Evening Bulletin, August 1, 1903.
4. W.E. Pinkham, "New Era of Building in Honolulu," Hawaiian Annual, 1902, pp. 145-148.

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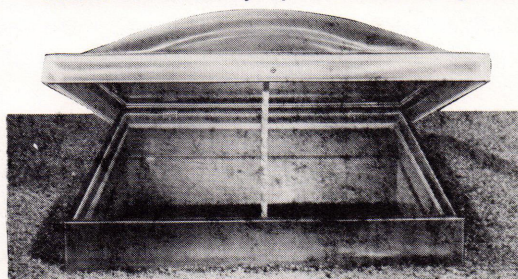
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# Jurisprudential Issues in Defining Shoreline Boundaries

by WILLIAMSON B. CHANG  
Associate Professor of Law  
University of Hawaii-Manoa

One of the most important questions in Hawaiian property law is the demarcation between public and private property on Hawaii's beaches. The vehicle for resolving this dispute is the case of *Sotomura v. County of Hawaii*, currently before the Ninth Circuit Court of Appeals. Both sides have filed 120 pages of legal arguments.

As the attorney for the state in *Sotomura*, the most significant authority as to the proper location of the line between public and private property turns out, for myself, not to be a judicial opinion or state statute, but a photograph which hangs in my living room. The original from which mine was copied must be at least three quarters of a century old. Captioned simply, "Waikiki and Diamond Head," it shows a horse and buggy in the distance, a thatched roof to the left, and two beached Hawaiian outrigger canoes in the foreground.

One day, while looking at this picture, I realized the canoes were

beached at a point above the vegetation line. The reason suddenly seemed obvious. It would be careless, of course, to beach the canoes where a wave during high tide could wash the canoe out.

I am not a professional historian but it seems eminently logical that canoe paddlers must have had the right to beach their canoes above the vegetation line. Today we might describe this as an easement by necessity, or a public easement. Hawaiians, of course, did not use English legal terms. It seems to me that if canoes existed, the king would certainly have granted canoe users the right to beach them safely.

*Sotomura*, of course, will not be decided on the basis of this photograph. But, if the answer to the dispute depends on a reconstruction of old Hawaiian practices, then it appears logical that the public right extended as far inland as it was necessary to beach canoes.

The more exact legal description

of the *Sotomura* case is that it involves a dispute as to the interpretation of the term *ma ke kai*. In the *Sotomuras'* land court decree *ma ke kai*, or "along the sea," is further described by natural monuments. Since erosion had eaten away at the boundary, the Hawaii Supreme Court interpreted the term as it had done in an earlier case, as meaning "along the upper reaches of the wash of the waves evidenced by either debris or vegetation."

For the *Sotomuras* the vegetation line was further inland, depriving them of land valued at about \$38,000. Their most powerful argument was that the land court decree was sacrosanct. They had relied on the description of the property in the land court decree.

Many shoreline owners have paid value exactly for the lands described by a decree. The Hawaii Supreme Court decision suggested that such owners had paid for lands which they did not own.

Some of the most powerful rules





in law are those which protect reliance. Expressed in Latin, these doctrines have a majestic and solid ring to them: *res judicata*, *stare decisis*. Both concepts are examples of the deference in law to the power accorded history. *Res judicata* essentially means that that which is done cannot be undone. *Stare decisis* implies that we should respect the wisdom of prior decisions. Both ideas are fundamental to the western legal mind which grants finality great importance.

As to *stare decisis*, what was wise judgment 20 years ago should also be regarded as wise today. Much of our intuitive sense of justice is embodied by this concept of equality across time. What happens to X today should not be different from what happened to Y 20 years ago. Similar situations should entail similar results.

*Res judicata* and *stare decisis* place history into an exalted position in the legal system. Law might simply be viewed as a very meticulous way of recording what happened, just so that it can be repeated time and again.

In *Sotomura*, these rather abstract notions of the significance of history in law have been raised to a constitutional level. Indeed, the case would have been effectively terminated at the Hawaii Supreme Court level had not federal constitutional issues been introduced. The issues that were raised are not new to anyone in the land use or development area. The *Sotomuras* claimed that the Hawaii Supreme Court "took" their property in violation of the Fifth Amendment by denying them the right to rely on the description of their property in the land court decree.

In other issues involving a "taking" in the land use area, whether it be "vested rights," zoning, or inclusionary zoning, the "taker" is a state or municipal government agency. The *Sotomuras* were claiming that it was the judicial branch, not the executive, which was doing the taking. True, one might argue, but what difference does it make whether the government entity doing the taking is the zoning board of appeals or the state supreme court?

First, there have been very few cases alleging a "taking" by a state supreme court. Second, the issues

are quite boggling to the judicial mind since they involve judges of one court (currently a federal court of appeals) deciding how far the judges of another court can go in making a decision. It is somewhat like the appeal in baseball of the home plate umpire's call to the third base umpire. Rather than examine the merits of the pitch, the third base umpire is likely to defer to the home plate umpire. The view from third base is not very good and if the call was within the parameters of reasonableness, one may as well let the closest person call the play.

Thus, the issue in *Sotomura* is not so much one of property law but rather the constitutional right of a state supreme court to call the tune as to its own property laws. *Sotomura* is most concerned with the rules regarding rules rather than the rules of property. The issues are particularly sensitive when a federal court is asked to invalidate a state court's pronouncements on state law.

One has probably heard of the Reagan Administration's "new federalism." In years past the term used was "state's rights." Although the Reagan federalism refers more to block grant programs and state responsibility for social and educational policy, it has its counterpart in the judicial philosophy of the conservative Burger Court. In the past decade, marked by the landmark decisions of *Younger v. Harris* and *Stone v. Powell*, the Burger Court has returned credibility to state courts. This trend has been a dramatic reversal of the Warren Court years where the Supreme Court allowed federal courts to nullify state court decisions, particularly in the criminal area.

There is no question that property owners have rights, too. But the federal court which must respond in *Sotomura* is much like the third base umpire called upon to second guess the home plate umpire. First of all, state supreme courts have the ultimate power to determine questions of state property law. Second, even if *Sotomura* represents a change from previous understandings as to the conclusiveness of a land court decree, is it a "taking" for the Hawaii Supreme Court to adopt a new rule?

This raises the question of

**Continued on Page 13**

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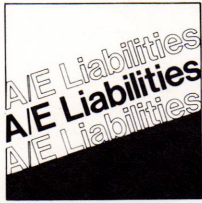
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# Project Risks vs. Fee; Substitutions

## PROJECT RISKS VS. FEE

### Case No. 1

**What Happened:** An A/E firm entered into an agreement to provide construction inspection services relating to bridge construction for a public entity for a lump sum fee of \$40,000. During the course of construction, a woman drove her automobile off an embankment into a newly dredged channel and drowned — allegedly owing to improper barricades and lane-striping of the project detour.

**Result:** The family of the deceased filed a wrongful death suit for damages in the amount of \$711,000 against the project owner, who is denying responsibility and seeking indemnification from the A/E firm.

### Case No. 2

**What Happened:** An A/E firm undertook final construction staking survey work for a major hotel, for a T&M fee of \$7,000. During the course of the work, which was performed at night in an effort to save the owner money by expediting the staking, using flashlights, etc., the staked location for a number of caissons was allegedly incorrectly placed and hence the drilling was done in the wrong location.

**Result:** The hotel owner filed a claim against the A/E firm for \$177,000 plus "unascertained" damages due to the alleged survey work errors.

### Lesson Learned

We must evaluate all of the potential project risks in relationship to fees to be earned before entering into an agreement to perform services. In the instances discussed above, substantial responsibility was assumed for relatively low fees, i.e., the A/E took on great responsibility for hotel construction staking for the prospect of earning a fee equal to less than two man-months. In the matter of the bridge inspection, the A/E was

sued for not catching the contractor in his faulty work (hang the policeman for not preventing a bank robbery).

An A/E firm cannot always determine every risk relating to each project before executing an agreement, but by becoming more cognizant of the relationship of the possible risks, a firm will be able to be more selective in the agreements it enters into.

Sometimes, if the contract terms cannot be written to limit our risks, we have to refuse an assignment. Be sure that all of the potential project risks are considered and that these are commensurate with fees to be earned.

## SUBSTITUTIONS

**What Happened:** An A/E firm specified plywood for the roof decking on a project. When the project was being bid the supplier of a non-plywood decking material told the owner that if his product were specified, the owner would save \$13,000. The owner instructed the A/E to work with the money-saving supplier, and the A/E proceeded to make the changes.

**Result:** The owner may have achieved the savings predicted, but the roof leaked like a sieve. After months of meetings with the contractor, subcontractor, special consultants, and attorneys it appears that the roofing system as specified was incorrect for the intended use and the architect, the general contractor, and the roofing manufacturer will have to share in the cost of replacing the roof.

**Lesson Learned:** We must listen to a client's suggestions for substitutions but we must also be certain that when the substitution is analyzed and found feasible that we coordinate *all* project elements affected. In the instance discussed above, apparently the ar-

chitect did not change the roofing materials to conform with the requirements of the substitute deck material.

It may first appear that the owner, after all, saved money by the substitution and should therefore suffer the consequences. However, unless we notify the owner, in such cases, that the substitution material may result in a leaking roof, the owner is entitled to a roof free of leaks.

In instances such as that discussed above, the A/E's costs are not only its share of the remedial work but the cost of personnel time involved in attempting to solve the problem; and special consultant and attorney fees are often greater than the cost of the remedy. **HA**

## Shoreline

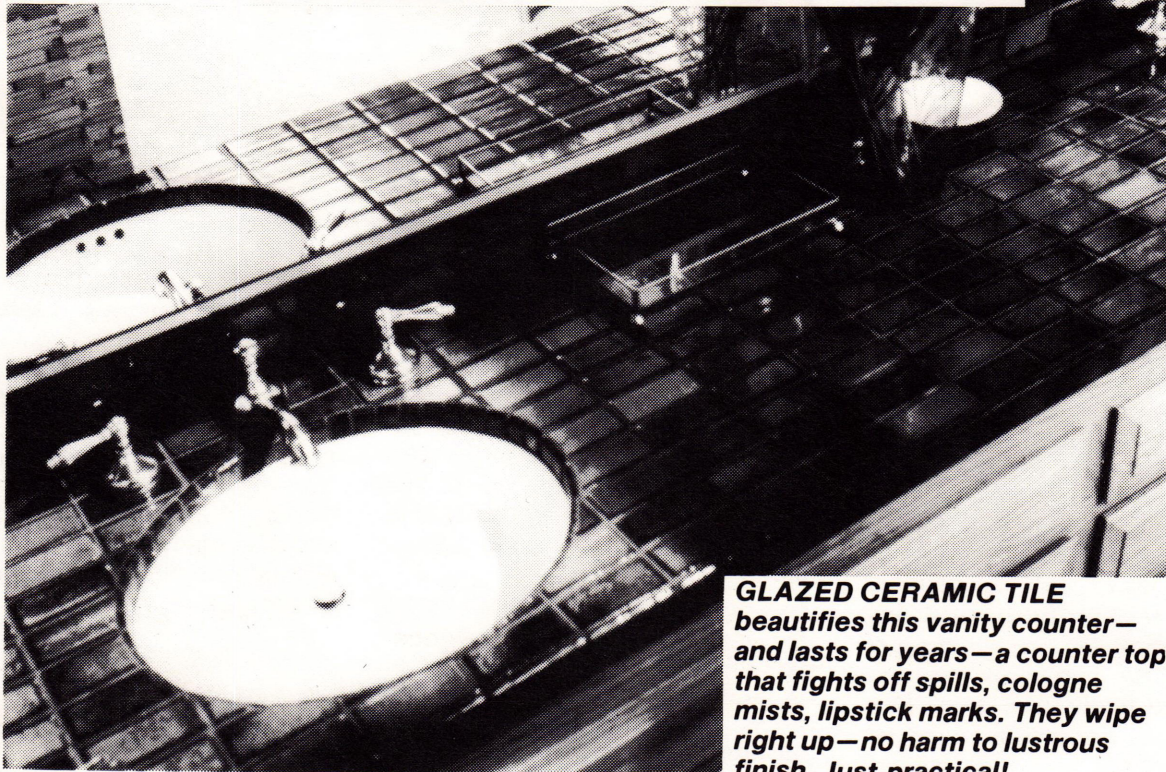
Continued from Page 11

whether a person has a "property" right in a prior judicial decision or decree. To argue "yes" would be to assert that law may not change. In other words, if this were so, we would be ruled by old decisions. But, we all recognize that law changes. The decision in *Brown v. Board of Education*, which held segregation unconstitutional, was a sudden and dramatic overruling of earlier segregation decisions.

In conclusion, as one can see, while canoes in a photograph might tell us much about pre-Cook practices, the issues which are likely to trouble the next set of judges who will preside over *Sotomura* are much more philosophical. They will not be concerned so much with drawing lines on beaches. Rather they must draw lines as to constitutional judicial conduct. **HA**



# CERAMIC TILE COUNTER TOPS IN BATHS AND KITCHENS . . .



**GLAZED CERAMIC TILE**  
*beautifies this vanity counter—  
and lasts for years—a counter top  
that fights off spills, cologne  
mists, lipstick marks. They wipe  
right up—no harm to lustrous  
finish. Just practical!*

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Hawaii's architects and developers know how to satisfy wants of home buyers in both single family and multiple family housing. Also how to improve and upgrade. Use Ceramic Tile—and one of the big ways now is Ceramic Tile Counter Tops in Baths and Kitchens. They add value. The ultimate user finds Ceramic Tile provides beauty combined with easy care and long life. The genuine seldom needs to be replaced—won't fade, blister, burn, is difficult to stain. Ordinary spills and soil wipe right up with plain water. Architects and developers know Ceramic Tile installations are worth more because they command better prices. The value added is more in most cases than the cost difference of other jobs that too frequently need to be replaced in a few years.

### THE TREND TO COUNTER TOPS MAKES NEWS

This year the fact more and more counter tops of Ceramic Tile are going in is decidedly evident. Architects, developers, interior designers and other professionals help the trend. The qualified, reliable, licensed contractors who make up Hawaii's industry program help, too, not only in promoting, but training new craftsmen, improving workmanship and installation methods, finishing jobs on time.

### HAWAII CERAMIC TILE, MARBLE & TERRAZZO PROMOTION PROGRAM

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Tel. 526-0469. Ask for "Tile"

#### Contact anyone of these Promotion Program participants:

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Allied Floor Corp. 847-0288  
Atlas Tile Inc. 839-7403  
Bob Pezzani Ceramic Tile 261-1580  
Classic Tile Corp. 841-6893  
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Hawaii Tile and Marble 839-5102  
Honolulu Roofing Co. Ltd. 941-4451  
S. Kunishige Tile 734-3340  
Logan Tile Co. 262-5724  
Nan-Cor Tile Company 488-5591

Pacific Terrazzo & Tile Corp. 671-4056  
Pacific Tile Co., Inc. 841-8534  
Tidy Tile 833-3042  
Venture Marble, Inc. 847-2105  
W.F. Pence, Kailua-Kona 324-1600  
Wichert Tile Ltd. 955-6631

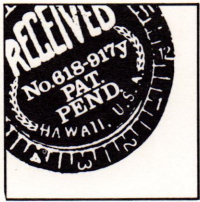


**Ceramic Tile, Marble  
& Terrazzo  
Belong in Hawaii**

ARCHITECTS, DESIGNERS, BUILDERS, Please Note  
Every week in advertising in the Honolulu Sunday Star Bulletin & Advertiser  
Hawaii Tile Contractors call special attention to you with this message:

"Building? Remodeling? Redecorating?  
Ask your architect, designer or builder about the beauties and values of Ceramic Tile."





# New Products

## COMPUTER-AIDED DRAFTING SYSTEM



A new computer-aided drafting system for architectural and mechanical applications was recently introduced by the Bruning division of AM International, Inc., in Honolulu. The EasyDraf<sup>2</sup> CAD system, priced under \$75,000, represents a first step into computerization for small and medium-size firms, and can increase productivity in trained operators from three to 20 times, according to the manufacturer.

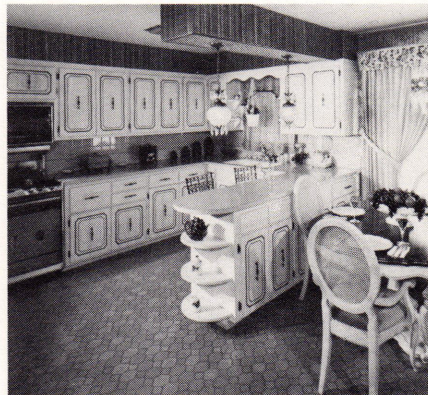
## WOOD FIBER ROOFING



Masonite Corp. is manufacturing a new wood fiber roofing product called Woodruf Traditional as an alternative to cedar shake, wood shingle, fiberglass and asphalt roofing. The material is available initially only in the 13 western states which comprise the company's Western Hardboard Division, including Hawaii. It is designed for use both in re-roofing and new construction, and can cut time and cost of installation substantially. There are only 36 pieces of Woodruf Traditional in each square (100 square feet of roof coverage), compared with 80 asphalt shingles and 200 wood shakes. The heavily textured wood fiber roofing is offered in its natural color and will weather to a silver gray color similar to other wood products. Local distributor is Aloha State Sales Co.

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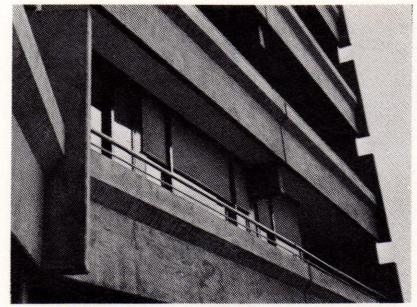
## CABINET RESURFACING



A new cabinet resurfacing process by International Cabinet Co., Inc., cuts the time and cost of kitchen remodeling jobs. The product, called Facelifters, carries a lifetime guarantee and comes in over 150 door styles with over 200 colors and wood grains to choose from. A cabinet of nearly any design can be created through electronic processing to match specific floor or carpet patterns. Family crests or special logos can be designed as well. Local distributor is Facelifters of Hawaii.

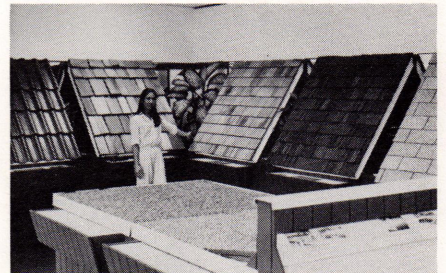
## MOVABLE SOLAR SCREENS

The 3S Halu-Rollscreen is a PVC-coated woven fiberglass sun-screen with outward vision and ventilation, with models for use in both exteriors and interiors. The mesh fabric reflects sun radiation



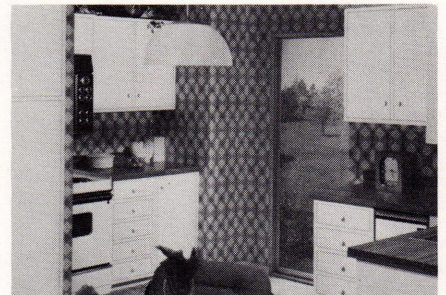
up to about 85 percent, admits non-blinding light into the room, yet permits open view, privacy, and air circulation. Components are extruded aluminum, anodized or baked enameled; corners of frames have concealed reinforcing members. The Halu-Rollscreens can be controlled singly or coupled in groups via four methods. Local distributor is Yamashiro BCR Hawaii, Inc.

## ROOF MART SHOW



Island Roofing recently expanded with a new division, Roof Mart, which maintains a showroom featuring many roofing products and systems. Printed information, view slides and displays are on hand.

## COLOR SELECTION SYSTEM



Formica Corp. has created the Color Grid system, which organizes 72 colors of its plastic laminates into two subgroups for easy selection. The new line of plastic laminates are of "universal grade," meaning they will be available for years to come. The line meets ISO and NEMA standards approved by 28 different countries. Aloha State Sales Co. is the local distributor.



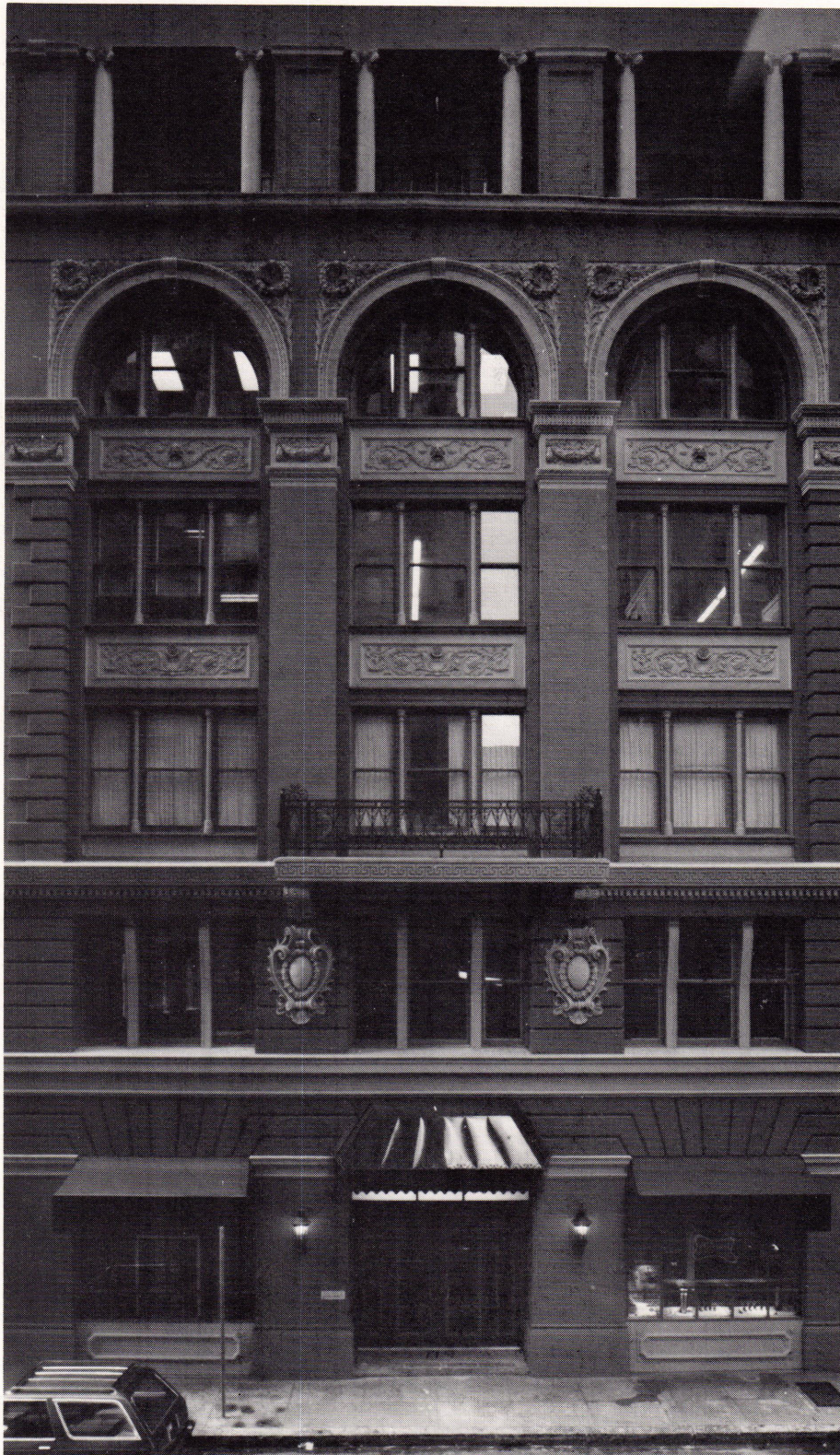


Laurels

# HS/AIA 1981 Awards Program

## The Stangenwald Building

Award for Excellence in Architecture for Extended Use  
by JAMES K. TSUGAWA, AIA & Associates



### PROJECT

The Stangenwald Building

### LOCATION

119 Merchant St. (Downtown)  
Honolulu, Hawaii

### ARCHITECT

James K. Tsugawa AIA  
& Associates

### DESIGN CONSULTANT

Paul Kamada & Associates, Inc.

### CONTRACTOR

Mouse Builders, Inc.

### CONSTRUCTION START

September 1980

### CONSTRUCTION PERIOD

6 Months

### PROJECT DESCRIPTION

Site size: 5,000 Sq. Ft.

Square footage per floor: 4,000  
(7 floors including basement)

Total: 28,000 Sq. Ft.

Lanai area: 2,000 Sq. Ft.

Building height: approximately  
80 feet

### CONSTRUCTION TYPES:

Concrete foundation

Exterior walls: brick veneer

Interior partitions: gypsum board

Concrete roof with "Elastomeric"  
weatherproof roofing.

Concrete floors

Complete central air conditioning system added.

Renovation accomplished with tenant occupying and relocating within the premises while construction was in progress.

### COSTS

Architectural \$ 950,000

Structural 100,000

Mechanical 150,000

Electrical 100,000

Total Construction Cost: \$1,300,000

Cost Per Square Foot \$43

### PROJECT INTENT AND SCOPE

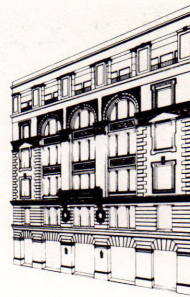
The intent for the design work was to maintain the traditional architectural integrity of the building. The term "restoration" would apply more than the term "renovation" for the work done to the structure. Renovation or "modernization" work would be done with

**HAWAII ARCHITECT**



## JURY COMMENT

The architect and his design consultant employed subtle use of color to accentuate existing detail. They effectively expanded the utility and attractiveness of the building, particularly in the lobby area. Appropriate use of decorative plaster to trim and carry through the original detailing made a major contribution to the aesthetic excellence of the structure. The rehabilitated Stangenwald Building is a major addition to the architecture of Downtown Honolulu.



less attention to the traditional detailing.

The exterior facade was cleaned-up by eliminating all the unsightly air conditioning units projecting from the windows. The street level front, doors, and windows were redetailed to reflect the traditional motif of the entire facade. The brick veneer of the front was paint detailed to achieve a harmonious balance with the major architectural elements and trims. The interior public areas were designed by re-introducing traditional mouldings such as crown mouldings, chair rails, paneling, and solid core panel entry doors that were similar to the original interior configuration.

The main lobby was completely redesigned for a more spacious entry lobby. An open stairwell was created to give additional dimension to the overall space. A light soffit coffered ceiling was designed with traditional moulding trim work over the open stairwell.

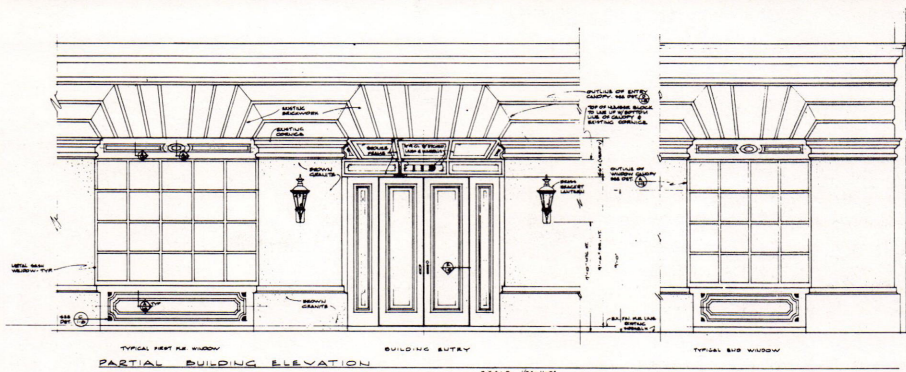
A 60-inch-diameter Williamsburg style chandelier in antique bronze with glass chimneys was installed in the coffer. A large crown moulding was used in the main lobby area to maintain the scale in the high ceiling space.

The main lobby tenant entries were designed to assure the owners that the traditional motif would be retained throughout the public areas. These fronts were done with wood and glass doors, window frames, and panels.

The wall areas and trims were paint detailed for a subtle color change to coordinate with the color of the marble and pick up the colors in the predominately blue patterned carpet.

Cast iron balustrade posts and bronze railing cap were specified to match as closely as possible to the originals.

The Stangenwald Building is one of the major older buildings in



the downtown area and in a prime location in the business and financial center. The project was designed to reflect the quality that the business community and public usage requirements dictated.

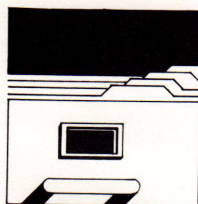
The design consultant, Paul Kamada & Associates, Inc., was retained to design and detail the traditional motif for the exterior and interior areas of the project. The firm provided the color work for the exterior facade and interior

spaces, as well as the finish and material specifications.

The contractor, Mouse Builders, Inc., exhibited sensitivity in the interpretation of the designer's plans and executed the work with a high degree of expertise in craftsmanship. The contractor was constantly aware of preserving elements of the original structure that were critical in the process of restoring the Stangenwald Building.

HA





Index

# Making Way for the Metric System

by VLADIMIR OSSIPOFF, FAIA

When Adam partook of the apple proffered by Eve, resulting in their banishment from the Garden of Eden, they stumbled, ran, and walked until finally Eve complained that she was tired and wanted to know how far they had gone and thus to properly answer her was born the need for some kind of linear measurement or designation. To Eve's question Adam said that he didn't know but reckoned that they had gone at least 1,000 paces. A millennium later the Romans established 1,000 paces as a convenient unit for measuring longer distances calling it the "mille passus" from which the Anglo-Saxon word "mile" is derived.

The need for a unit of measurement is pretty self-evident. Anyone wanting to claim ownership of a piece of land or attempting to build any kind of shelter would soon recognize the need for units of length and if these are to have meaning in common usage they would need to meet certain standards of length. Historians of metrology generally conceded that weights and measures were among the earliest devices invented by mankind. It is also generally agreed that the need to measure lengths preceded the need to measure weight, volume, area, and other quantities.

Before we go into the merits and demerits of the meter, let's take a look at the other numerous, different, diverse, and colorful linear measurement.

Beginning with the micro unit and working upward, we first have the Angstrom, a unit of which 254,000,000 are required to make one inch. The Angstrom is used in spectrum analyses for measuring the dimension of light waves.

Next comes the mil (.001 inch) used in electrical work, especially in indicating the cross section of wires.

The point (1/72 inch) is used in

designating type sizes.

An em is a unit of measure used in composition and varies with the size of the type. It is usually considered as equaling the square of the face height.

The point is followed by the line (1/12 inch) used mostly by printers and botanists. The latter, an individual lot, denote the line by the symbol "which usually denotes an 'inch.'"

The barleycorn (1/3 inch) is an old measure, but is still used in designating shoe sizes which are graded by thirds of an inch or "barleycorns."

The inch comes next from the Latin uncia, subdivided by the Romans into 12ths. Under Edward II in 1324 the inch was defined by statute as "three barley corns round and dry." The old Scotch inch is slightly longer than the English.

The obvious units of length were part of a man's own body. The early units thus were derived from the width and lengths of one's fingers, hands, arms, and feet. Interestingly enough such units disseminated by Rome 2,000 years ago still have very similar values. The foot used by them and the foot used today differs only by less than 4/10s of an inch.

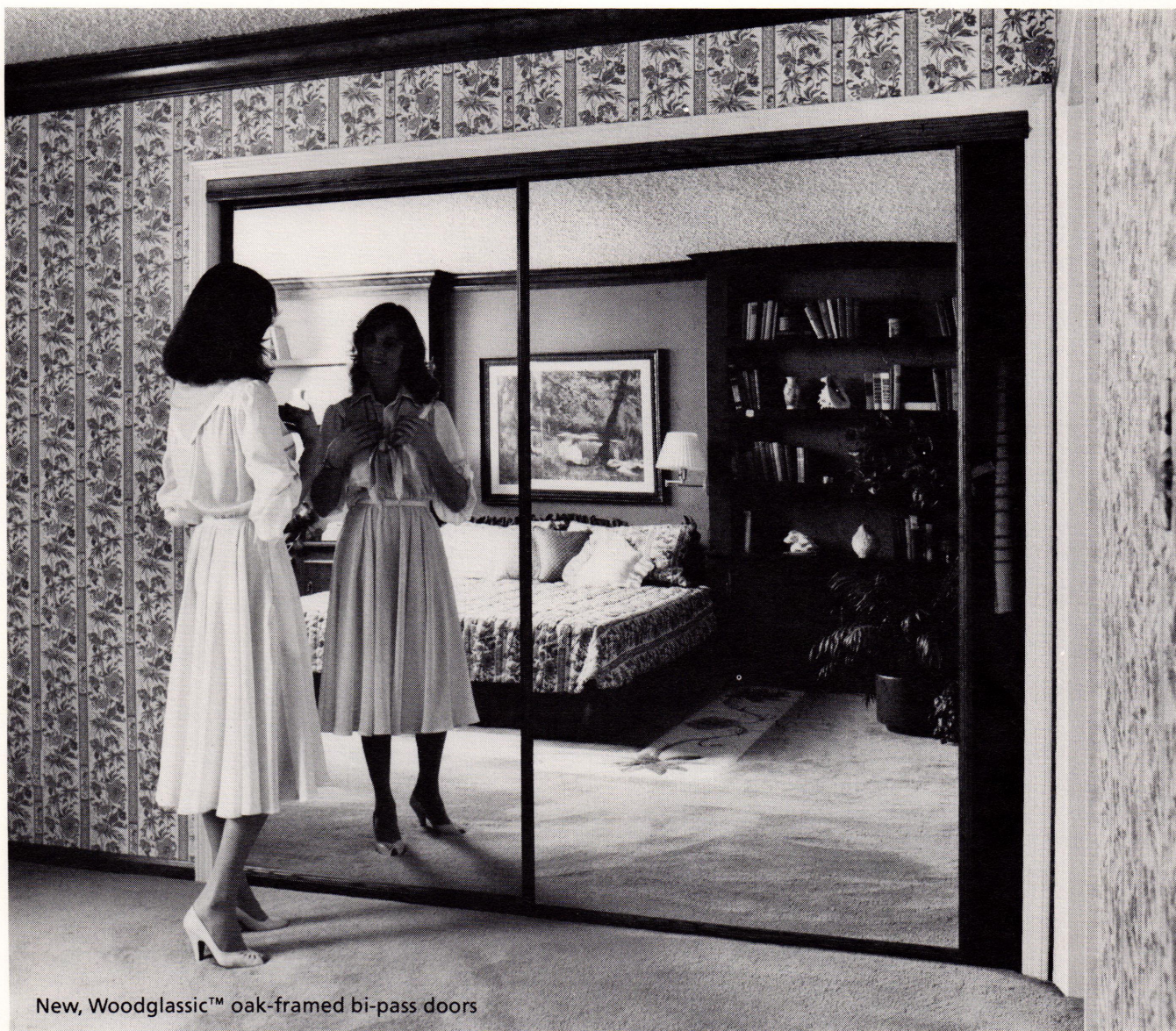
But feet do of course vary in size, and in 1563, the German, Jacob Kobel, suggested that "to establish as standard measure with which to measure fields and vineyards . . . let 16 men large and small at random, as they come one after another out of church, put their feet on a line, one ahead of the other . . . then let this line be divided into 16 equal parts, each one a (standard) foot long."

The nail (2 1/4 inches or 1/16 of a yard) is the distance from the end

The "right and lawful" rod; 16 assorted individuals, toe to heel.







New, Woodglassic™ oak-framed bi-pass doors

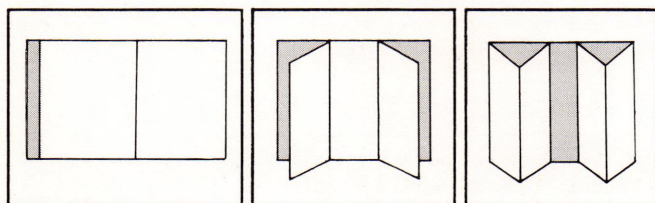
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# Metric System



Ossipoff

of the thumb nail to the joint at the base of the thumb and is used for measuring cloth.

The palm (3 inches) is used, of all things, in measuring horses.

The finger (4½ inches), about the length of the middle finger, is a unit in cloth measure.

The breadth of a finger is used in measuring charges of gunpowder, not to mention Scotch in a bar glass.

The surveyor's link (7.92 inches) is the length of a link in a surveyor chain. Twenty-five surveyors' links equal one rod.

The quarter (9 inches, or ¼ of a yard) is again used for measuring cloth (more frequently in Great Britain than in the U.S.).

The span (also 9 inches long) was originally half a cubit but is not an officially recognized unit.

Almost every nation, ancient and modern, has had a unit called the "foot." Its value differed somewhat however as might be expected. Legally the foot is defined as one-third of the yard or 12 inches.

Fractions of a foot are usually expressed in inches and fractions of inches but here the surveyors and engineers differ and often express fractions of a foot in decimals. The botanists again stray from the accepted norm and rather than using the usual apostrophe ('); as the symbol for the foot use the symbol usually reserved to denote a degree (°). In construction the foot and inch are used to the exclusion of the yard. But in measuring cloth, the yard and its binary subdivisions are used to the exclusion of the foot.

The engineer's link (12 inches long) is the 1/100th part of an engineer's chain and is divided decimally. One-tenth of an engineer's link therefore equals 1.2 inches.

The cubit is now defined as equaling 18 inches. The Biblical cubit, however, they say, equals

21.8 inches.

The next unit is the Gunter's scale (2 feet long), and is followed by the pace 30 or 36 inches long depending upon whether you are speaking of the Roman pace or the military pace and the particular cadence used.

The yard is 36 inches long. To start with, the common denominator of Anglo-Saxon measurement was the yard. The word comes from the Saxon word "gird," sometimes spelled "gyrd." It was the length of a sash or girdle worn around a person's waist and which could be easily removed and used as a measuring device. King Henry I in 1308, however, decreed that the yard should be the distance

arms of man was the only way to measure that I had ever seen, and this was very uncertain, as well as an unsatisfactory and vexacious way in trade, particularly in selling cloth. It would sometimes take hours to decide on the measure of a fathom and a half of cloth, particularly the valuable kinds of cloth. Then men with extremely long arms were requisitioned and they would sometimes require over seven feet to the fathom." (A standard fathom is 6 feet.)

Some of his Hawaiian customers accused Hunnewell of cheating, claiming that his yardstick was too short. In such cases, he said, his only appeal was to the old Gunter's scale. This was a two-foot rule then

## There are claims that the yardstick was invented right here in Hawaii . . .

from the tip of his nose to the end of his thumb.

There are claims that the yardstick was invented right here in Hawaii by James Hunnewell, founder of C. Brewer & Company, Ltd. According to Hawley, his research in the public library establishes 1824 as the earliest date for the invention of the yardstick. But he also came across a letter in the State Archives written by Hunnewell to the Rev. Samuel C. Damon, editor of "The Friend," in which Hunnewell claims to have made and used a yardstick in 1820. Apparently Hunnewell was driven to inventing the yardstick to be used as a standard measure rather than the length of a man's arm, in self defense or, rather, in defense of his merchandising.

His letter, in part, reads as follows:

"My first residence at the islands was during the lifetime of Kamehameha First. During that time, I never saw or heard of any kind of standard for long measure; the

accepted for measuring yardage. It is interesting to note that the yard, equaling 3 feet or 36 inches as we know it, as a cloth measure was then divided into 4 equal parts each equaling "16 nails."

There seems to be some confusion as to just when the yard was established legally, and no wonder! A 1496 standard bronze yard still exists in England and had been used for the verification of other yards. In 1588, another standard, known as the Winchester standard, was made and used as the legal standard until 1824 when still newer standards, the imperial standards, were authorized.

Beginning in 1838, brass copies of the national standard yard were made in the U.S. for individual states by the Treasury Department's Office of Weights and Measures. The national standard yard, rather than being measured from line to line, is end-measured, this being the more accurate method with the subdivisions of the yard appearing on the matrix



# Metric System

alongside.

Sometime in the early 1800s the U.S. Coastal Survey was organized and it was found necessary to again establish a definite standard of length. This time an 82-inch-long brass bar was secured from Troughton, a London instrument maker. This bar wasn't compared with the English standard yard but the distance between the 27th- and 63rd-inch marks on the bar was accepted nevertheless to represent the standard yard and was made the basis of the standard set out in accordance with the Act of Congress of 1836.

In the meantime the British imperial yard was destroyed by fire in 1834. A new standard was made and two copies of it were presented to the U.S. in 1856. When these were compared with the Troughton scale, the latter, at a temperature of 62°F, was found to be 0.0083 inches longer than the new imperial yard. One of the copies of the bronze yard, No. 11, was then accepted as the standard by the U.S. Office of Standard Weights and Measures in place of the Troughton scale and all measurements thereafter were based on it until 1893 when the international meter became the standard of length.

Copies of the imperial yard too had shown noticeable differences with the standard when compared, so that it was suspected that the standard itself was not constant. Also the lines, between which the yard was measured, were about 1/1000 of an inch wide and these made them too broad for accuracy. The international meter, on the other hand, satisfied the rigorous requirements and by an order approved on April 5, 1883, the yard at last was defined as equaling 3600/3937 of the meter. The present U.S. standard is the national prototype meter No. 27 received by the President of the

United States in 1890. This is an accurate copy of the international prototype and is preserved at the International Bureau of Weights and Measures in accordance with the International Metric Convention of 1875, now signed by the leading countries of the world. These countries jointly maintain and direct the work of the bureau through official representatives forming an international committee composed of eminent scientific men.

In the course of preparing this paper I visited the National Bureau of Standards located in Gaithersburg, Maryland, some 20 miles outside of Washington, D.C. This is a vast, securely fenced area containing near its center several large buildings. At the entrance to the fenced area you must identify yourself at a guardhouse and have a legitimate reason for access to the grounds. The guards obtain clearance through headquarters whereupon you are allowed to continue by car and are then again inspected by still more guards before access to the buildings is gained. A display room is maintained for visitors and it is a thrill to actually see the 82-inch-long bar with its markings at the 27th- and 63rd-inch marks, the distance between which was supposed for so long to be the real, true yard.

The slightly longer meter and its subdivisions and multiples will be discussed a little later.

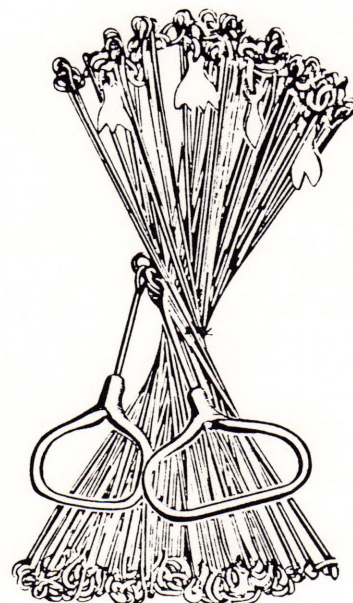
The English ell (45 inches) is a unit seldom used and varies from place to place. The Flemish ell (27 inches) is still used commercially in the low countries.

The fathom (6 feet), used in measuring the depth of water or mines, comes from the Anglo-Saxon "faethum," meaning embrace, and originally was the length of rope between the two hands when the arms were outstretched.

The rod, perch or pole (5½ yards) is used in measuring land and varies in different places anywhere from 5 to 8 yards. Originally it was supposed to have been the length of the ancient goad used to measure the width of the first furrow.

The surveyor's or Gunter's chain is 4 rods, 22 yards or 66 feet long. One hundred sixty square rods or 10 square chains equal 1 acre. Six hundred forty acres equal a square mile or section and 36 square miles equal a township.

The engineer's chain (190 feet)



**The surveyor's or Gunter's chain.**

is used by engineers, obviously, and is decimally divided.

The bolt (40 yards) is used in measuring cloth. The name now, however, simply means a roll of a definite length and this varies with different places and manufacturers.

The skein (about 120 yards) measures yarn but this too varies depending on the place and the material.

The furlong originally meant "length of a furrow" and is sup-



posed to be the distance oxen could plow without stopping to rest. This distance was defined by early Tudor rulers as equaling 220 yards which in turn led Queen Elizabeth to change the length of the mile as will be mentioned a little later.

The U.S. cable (240 yards) is defined by mariners as equaling 120 fathoms and is recognized by the U.S. Navy. Seven and a half cable lengths equal one mile.

The hand is a unit of length for yarn and is either 840 yards or 3,000 yards long depending upon whether you are measuring cotton or linen. Other lengths, as well, fall under this title depending upon the material being measured.

The "statute" or "land" mile, commonly used for measuring

sphere the degree varies in length and thus has caused a lot of confusion. The U.S. Coast and Geodetic survey finally has defined the mile as 1/60 part of the length of a degree on the great circle of a sphere whose surface equals the surface of the earth. This makes the nautical mile 6,080.20 feet long. Uncertainty in the dimension of the earth, however, affects the last decimal place given.

The league equals three miles. But, there are two leagues. The marine league equals three nautical miles or 18,240.6 feet. The land league equals three statute miles or 15,480 feet. Moreover, the league's value differs in different countries.

We now jump to an astronomical unit which uses the radius of the

### ... the Norwegian mile for some unknown reason amounts to seven U.S. miles.

longer distances, equals 5,280 feet. The name is derived from the previously mentioned "mille passus," the 1,000 paces or 5,000 feet, changed by Queen Elizabeth I to equal 5,280 feet so that the mile would equal exactly 8 furlongs. Prior to this time the relationship of the "furrow long" with the Roman mile of 5,000 feet was awkward.

Here again because of differences in the size of the human body, the mile though used by almost every European nation, differs from country to country. In Holland the mile is about two-thirds that of the U.S. mile and the Norwegian mile for some unknown reason amounts to 7 U.S. miles.

The degree equals about 60 nautical miles.

Since the earth isn't a perfect

earth's orbit as a measure of length or about 93 million miles.

The next jump is to the light year which, as the name suggests, is the distance that light at 175,000 miles per second travels in a year — or about 6 trillion miles.

In addition to all this there are special methods of denoting lengths of special commodities and special measures of all kinds such as those denoting the thickness of a material, thickness of wire, fineness of yarn, and so forth.

I hope you have found this recitation of the many and diverse designations of linear measurements as interesting, amusing, charming, and picturesque as I have.

We now come to metrication. Are we to give up all picturesqueness for the sake of standardiza-

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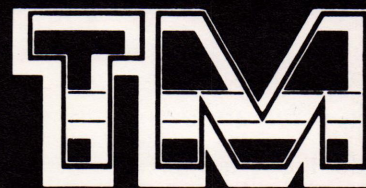
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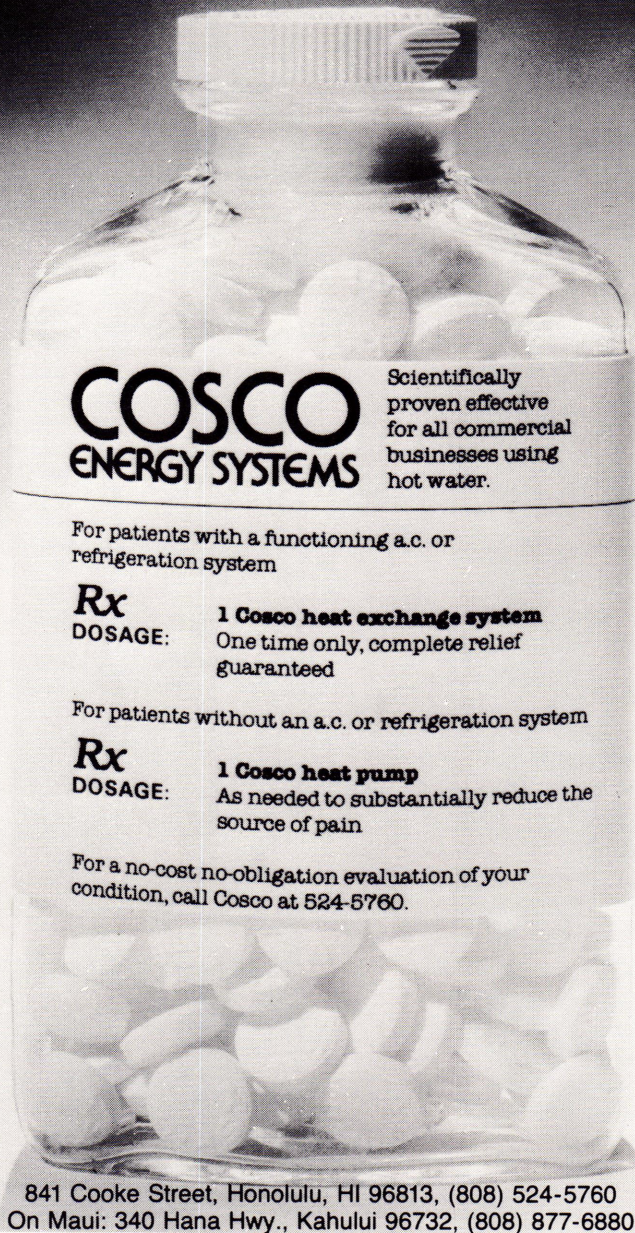
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## Metric System

tion? Are we yet again to make the world a less interesting place? Just in my lifetime I have seen the Chinese lose their queues and the Japanese their kimonos. I have seen indigenous architecture become buried by materials prefabricated thousands of miles away so that the architecture the world around looks alike. A worldwide uniform unit of measurement will help make this place more and more commonplace. Travel to our other planets so far is problematic and moreover they have not appeared to be very hospitable. Can't we have standardization, an obvious necessity in today's world, without eliminating all those so unique terms? Must we accept a completely arbitrary system? The fact that so far we haven't embraced the metric system with open arms may be, perhaps, because subconsciously we don't want to give up our derived and captivating terminology.

More than a hundred years have gone by since 1866, the year Congress passed the law making the metric system the only system ever to receive specific legislative sanction. This law reads that "it shall be lawful throughout the United States of America to employ the weights and measures of the metric system; and no contract or dealing or pleading in any court shall be deemed invalid or liable to objection because the weights or measures expressed or referred to therein are weights and measures of the metric system."

Almost two hundred years have gone by since Thomas Jefferson and John Quincy Adams were embroiled in the metric question and we haven't fully resolved it yet.

Just how arbitrary is this unit of measurement called the meter? Judge for yourself. The meter started out to be the equivalent of one ten-millionth part of the earth's

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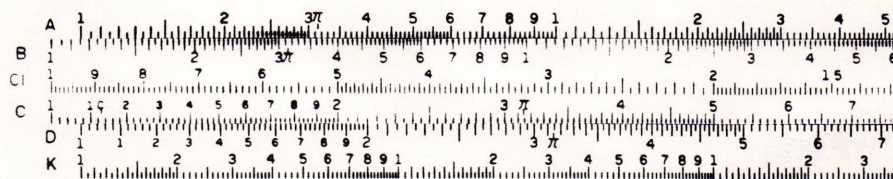
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circumference. This was Talleyrand's and the Paris Academy of Science's proposal in 1790 based on a 1620 proposal of Gabriel Mouton, vicar of St. Paul's church in Lyons. He, the historians have settled, is the "founding father" of the metric system. This definition by today's standards is too inaccurate and the 1960 definition agreed upon at the Eleventh General Conference on Weights and Measures is that "the meter is the length equal to 1,650,763.75 wave lengths in vacuum of the radiation corresponding to the transition between the levels 2p<sub>10</sub> and 5p<sub>5</sub> of the krypton 86 atom."

To be fair, though, I think we can

dispense with what might have been the basis of the selection of the meter as a standard. It is the acceptance of a standard that counts.

In the metric system the prefixes are constant — Greek ones: deca, hecto, kilo, mega, giga for multiples. Roman ones: deci, centi, mili, micro for subdivisions. The fact that it is based on the decimal system makes it easy to calculate its multiples or submultiples, but if you aren't careful in putting the decimal point before or after the correct digit, its misplacement can be the source of errors of tremendous magnitudes.

Conversion to the use of metric

generally can take two forms — soft and hard. Under soft conversion one simply uses present items and describes them metrically. This gives rise to jokes such as the carpenter foreman reprimanding an apprentice, "See here, under metrication you don't ask for a 2 x 4, you ask for a 3.810 cm x 8.89 cm." Or such as Lloyd George's asking if one expected the British working man to go into a public house and ask for a .56825 litre of beer?

Under hard conversion one actually changes the common dimension of products to metric units. There is a lack here, however. The foot is an understand-

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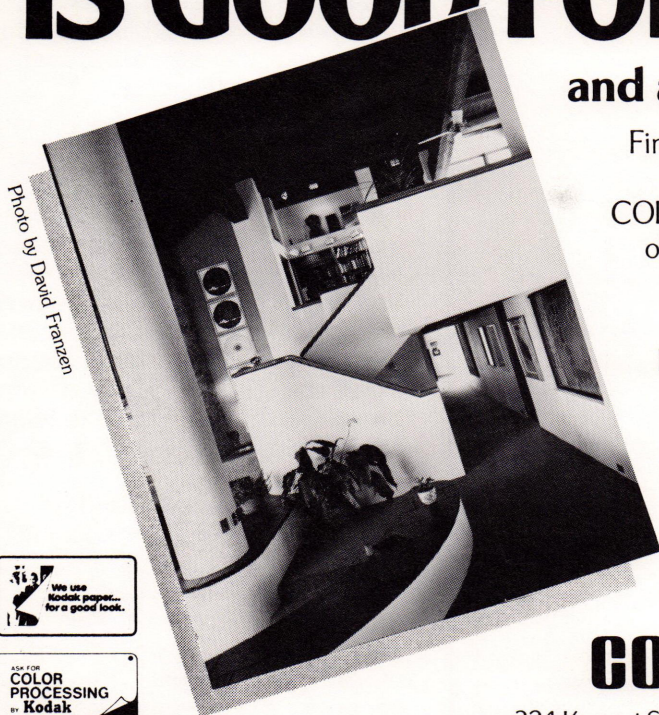


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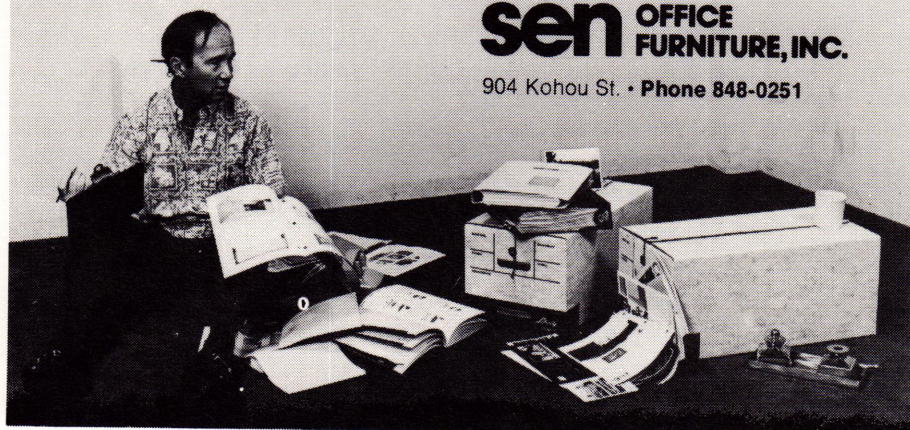
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# Metric System

able, convenient and recognizable dimension. The metric system doesn't have such a convenient unit. The meter, as such, is too long — the centimeter is too short. The closest denomination to our foot is three decimeters. The decimeter is not a popular unit as of the moment but with time we may get to liking it because it is roughly 4 inches long and much of our building materials tend to be fabricated to the 4 inch module (4 x 8 bricks, 4 x 4 tile, 8 x 16 hollow block, 2 x 4 and 4 x 4 lumber, and so on).

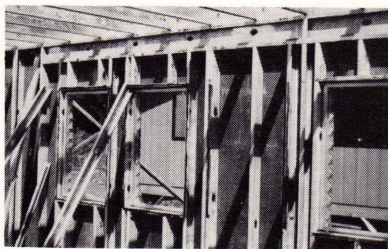
I won't tax you with the history of the metric system's struggle for acceptance in the U.S. Hundreds of thousands of words have been written and spoken on the subject. As recently as 1973, the U.S. Government Printing Office published a book 665 pages long comprised of the hearings before the Subcommittee on Science and Astro-nomics of the House of Representatives of the 93rd Congress. This 665-page book has to do with speeches made and evidence presented on the subject of "Conversion to the Metric System of Weights and Measures."

The debate on whether or not to adopt the metric system pretty much fizzled out with the Great Depression. Nothing much happened for another quarter of a century. But with the advent of the 1960s the matter again came under study. The wheel was again being re-invented. This long history, however, is not without some benefit. The matter now is looked at seriously and well and with its history in mind.

Where do we stand today?

Metrication is just beginning to become an industry worry. When whole industries have shifted over to metric measure, scales, units, package redesign will often mean more than simple adjustment. Dropping the Standard No. 2 food can will for example affect can-

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making, packing lines, carton sizes, handling, and lots more. Labor unions propose that garage mechanics be paid up to \$4,000 for new socket wrenches and other metric tools and for retraining in metric arithmetic. We should note however, that mechanics working on foreign cars today already use metric tools and seem to have no trouble with metric measurements. The Washington Post of May 18, 1974, editorialized that the attitude of labor toward coordinated metric conversion reminded it of the legendary French workers who fought the introduction of machines by clogging the wheels with their wooden shoes or "sabots."

Sabotage, however, is not stopping metric's progress. Olympic pools are built to 100-meter standards, most prescriptions are dispensed in grams, photographic film is measured in mm, some road signs in the U.S. now show distances both in miles and kilometers. General Motors, the largest manufacturer in the U.S. which purchases \$14 billion worth of tools, parts and components from 40,000 different companies each year, has announced that it is switching over to the metric system for all its new products.

International Harvester designs and manufactures all its new products for shipment abroad at its Libertyville, Illinois, plant in metric units.

More and more industries are considering converting to the metric system than would have thought it possible a few years ago. Many are gearing up to partial or total conversion.

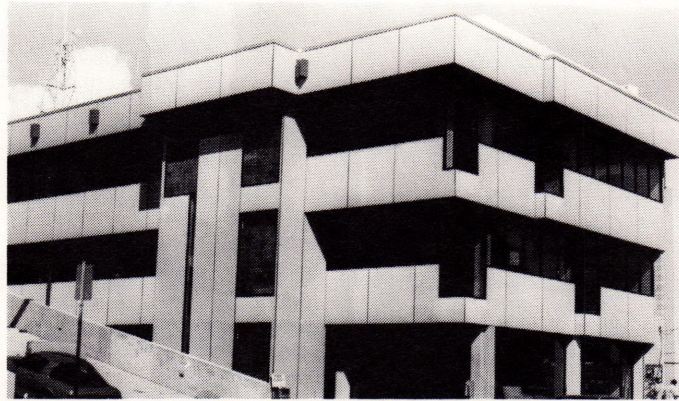
The whole world today has either gone metric or is committed to this action with a few notable exceptions. These are: Barbados, Burma, Gambia, Ghana, Jamaica, Liberia, Muscat, Oman, Naru, Sierra Leon, Southern Yemen, Tonga, Trinidad and, last but certainly not least in this collation of countries, republics and what have you, the United States.

In conclusion — a quotation which I think describes our problems well:

"The substitution of an entire new system of weights and measures instead of one long established and in general use, is one of the most arduous exercises of legislative authority. There is in-

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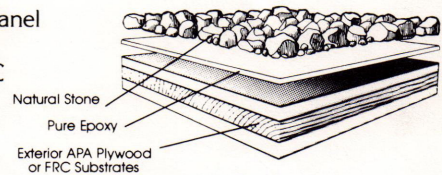
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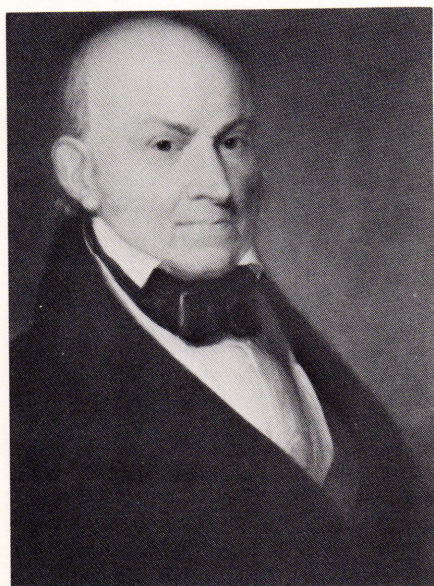


deed no difficulty in enacting and promulgating the law; but the difficulties of carrying it into execution are always great, and have often proved insuperable. Weights and measures may be ranked among the necessities of life, to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; to the labors of the husbandman; to the ingenuity of the artificer; to the studies of the philosopher; to the researchers of the antiquarian; to the navigation of the mariner and the marches of the soldier; to all exchanges of peace, and all the operations of war. The knowledge of them, as in established use, is among the first elements of education and is often learnt by those who learn nothing else, not even to read and write. This knowledge is riveted in the memory by the habitual application of it to the employments of men throughout life. Every individual, or at least every family, has the weights and measures used in the vicinity, and recognized by the custom of the place. To change all this at once is to affect the well-being of every man, woman, and child in the community."

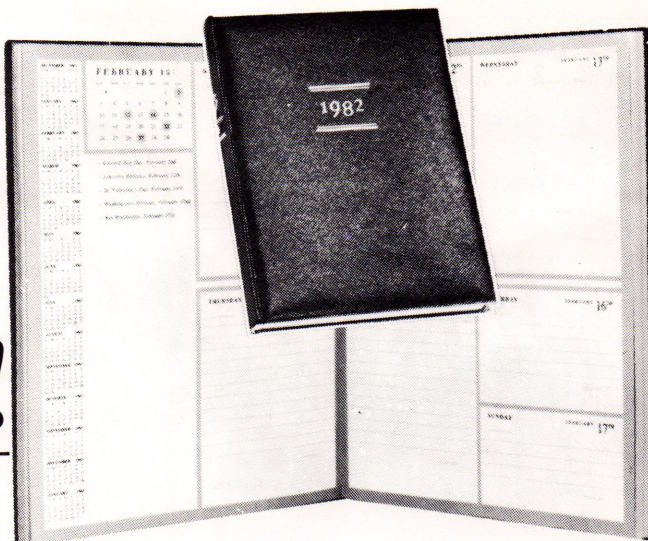
You might rightly guess that again it was John Quincy Adams who wrote this summarization more than 150 years ago — 1821.

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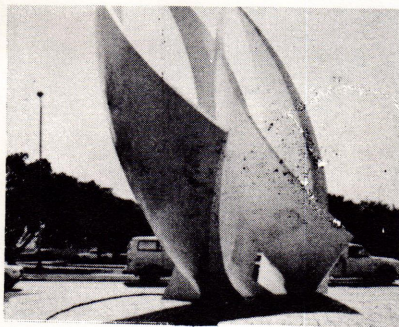
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## Glazed Panel Standards Revoked

After extensive meetings with major building code organizations, the U.S. Consumer Product Safety Commission (CPSC) recently decided to turn over enforcement of safety requirements for glazed panels in buildings to local building inspectors. The CPSC anticipates consumers can be better protected by the approximately 50,000 city, county, and state inspectors than by the limited number of federal CPSC inspectors.

After August 1981, the part of the CPSC Safety Standard for Architectural Glazing Materials dealing with glazed (generally glass) panels located near doors and, in non-residential buildings, next to walkways, was no longer in effect.

The three major model building code organizations — Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International (SBCCI) — have either finalized or are very close to making a final code requirement for glazed panels.

As the different state, city, and county jurisdictions incorporate the code change into their building code requirements, enforcement can be handled locally.

Since CPSC standards preempt state and other local requirements, it was necessary to revoke the CPSC standard for glazed panels in order for local inspectors once again to enforce the safety of glazed panels in buildings. The local building inspector is in a far better position to provide guidance to the builder and glazing contractor since he is more frequently at the building site during the construction of buildings and residences. HA

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### Names and addresses of Publisher, Editor, and managing Editor:

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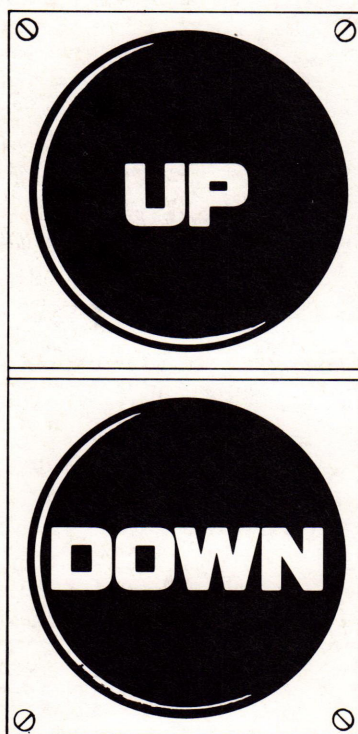
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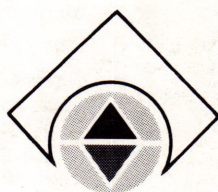
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